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(54) Title: METHODS FOR DETECTING NUCLEIC ACID VARIATIONS

(57) Abstract: The invention provides methods and diagnostic test kits for detecting target nucleic acid sequence variations in a sample. In particular, a plurality of oligonucleotide probe sets is provided. Each set has a target specific portion and a barcode. The target specific portions of the probes are suitable for ligation together when hybridized adjacent to one another on a corresponding target polynucleotide. The ligated product contains a barcode that binds to a probe attached to a substrate and hence facilitate the capture of the ligated product on the solid support. Detection is carried out with a gold nanoparticle-attached barcode that hybridizes with the barcode on the ligated product.

WO 2005/001113 A2